Title: PROCESS AND COMPOSITION FOR PRODUCING SELF-

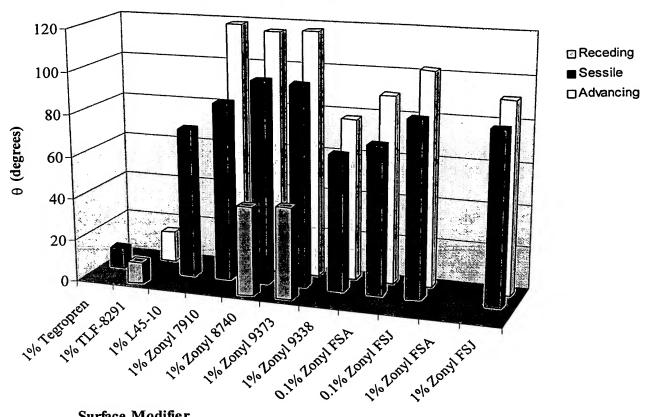
CLEANING SURFACES FROM AQUEOUS SYSTEMS First Named Inventor: Richard S. Valpey III, et al.

Attorney Docket No. J-3456A

Attorney Contact Information: Frank B. McDonald (Reg. No. 28,738)

Sheet 1 of 7 Phone: 262-260-2045

Water Contact Angles resulting from treatment of Glass with various Surface Modifiers



Surface Modifier

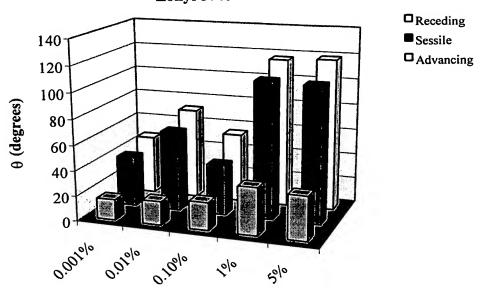
Figure 1

Title: PROCESS AND COMPOSITION FOR PRODUCING SELF-CLEANING SURFACES FROM AQUEOUS SYSTEMS First Named Inventor: Richard S. Valpey III, et al.

Attorney Docket No. J-3456A
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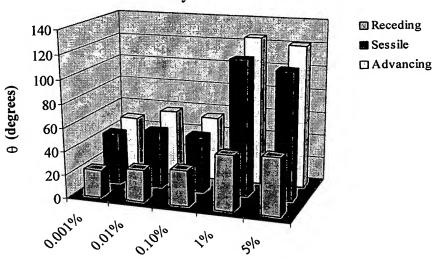
Sheet 2 of 7 Phone: 262-260-2045

Water Contact Angles for treatment of Glass with **Zonyl 8740**



Dipping Solution Concentration

Water Contact Angles for treatment of Glass with **Zonyl 9373**



Dipping Solution Concentration

Figure 2

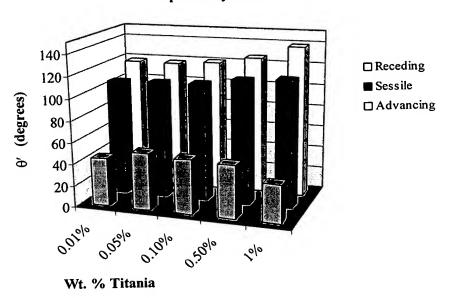
Title: PROCESS AND COMPOSITION FOR PRODUCING SELF-CLEANING SURFACES FROM AQUEOUS SYSTEMS

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Phone: 262-260-2045
Sheet 3 of 7

Water Contact Angles for treatment of Glass with Titaniadoped Zonyl 8740



Water Contact Angles for treatment of Glass with Titaniadoped Zonyl 9373

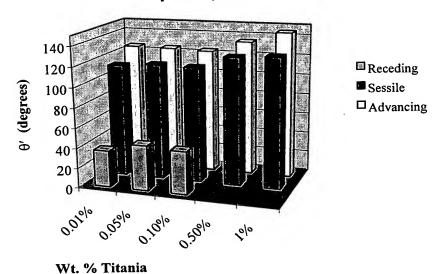


Figure 3

First Named Inventor: Richard S. Valpey III, et al.
Attorney Docket No. J-3456A
Attorney Contact Information: Frank B. McDonald (Reg. No. 28,738)
Phone: 262-260-2045
Sheet 4 of 7

Sessile Water Contact Angles for treatment of Glass with Alumina-doped Zonyl 9373

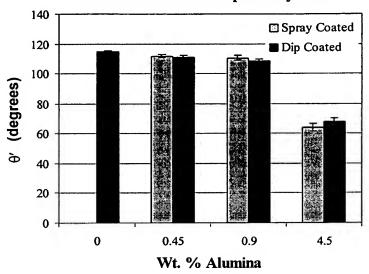


Figure 4

Water Contact Angles for treatment of Glass with Titaniadoped Silclean

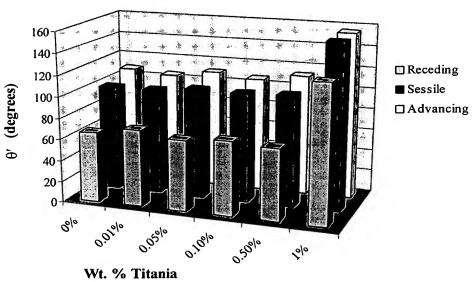


Figure 5

Title: PROCESS AND COMPOSITION FOR PRODUCING SELF-CLEANING SURFACES FROM AQUEOUS SYSTEMS

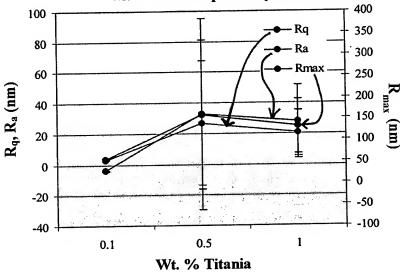
First Named Inventor: Richard S. Valpey III, et al.

Attorney Docket No. J-3456A

Attorney Contact Information: Frank B. McDonald (Reg. No. 28,738)

Phone: 262-260-2045 Sheet 5 of 7

A) Nanoscale Surface Roughness for treatment of Glass with Titania-doped Zonyl 9373



Nanoscale Surface Roughness for treatment of Glass with Alumina-doped Zonyl 9373

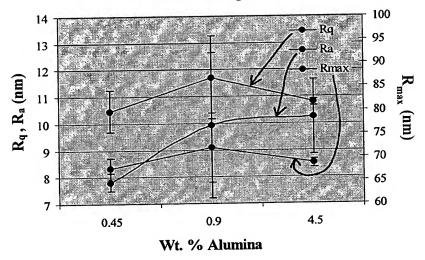


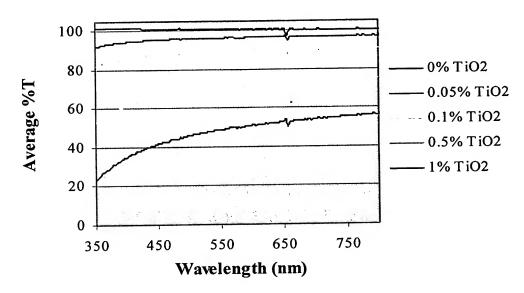
Figure 6

Title: PROCESS AND COMPOSITION FOR PRODUCING SELF-CLEANING SURFACES FROM AQUEOUS SYSTEMS First Named Inventor: Richard S. Valpey III, et al. Attorney Docket No. J-3456A

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Sheet 6 of 7

Average % Transmittance of TiO2-doped Zonyl 9373 Films on Glass

a)



b) % Transmittance at 550 nm vs Wt. % Particulate in 1% Zonyl 9373 films on Glass

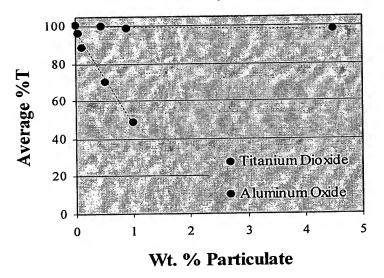


Figure 7

First Named Inventor: Richard S. Valpey III, et al. Attorney Docket No. J-3456A a) Attorney Contact Information: Frank B. McDonald (Reg. No. 28,738) Sheet 7 of 7 % Chan % Pass 20.0 100.0 18.0 90.0 16.0 80.0 14.0 70.0 12.0 60.0 10.0 50.0 8.0 40.0 6.0 30.0 4.0 20.0 2.0 10.0 0.0 0.1000 0.0100 0.0010 - Size (microns) -Primary Particle Size by SSA

Title: PROCESS AND COMPOSITION FOR PRODUCING SELF-CLEANING SURFACES FROM AQUEOUS SYSTEMS

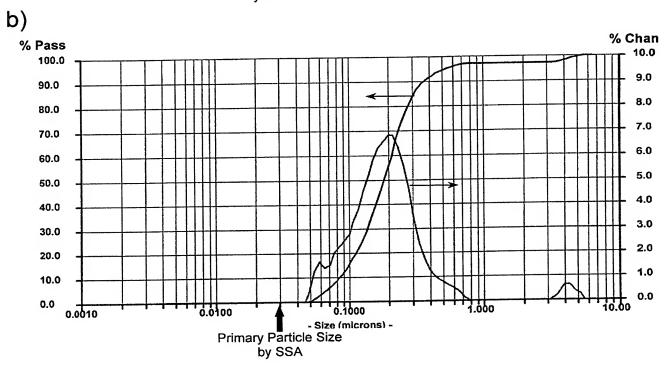


Figure 8